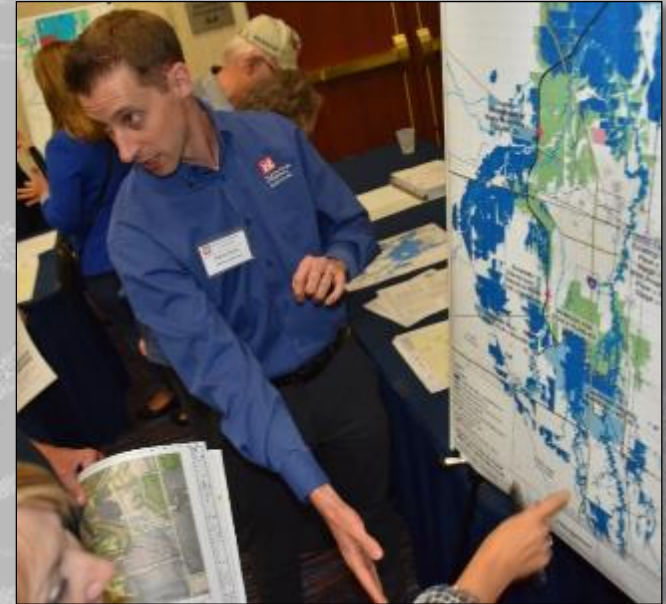


# U.S. ARMY CORPS OF ENGINEERS ST. PAUL DISTRICT

Colonel Karl D. Jansen  
04 February 2020

*Driven to be a  
**District that Delivers***

*for our workforce, partners, region, and Nation by  
**BUILDING STRONG** and Taking Care of People*



US Army Corps  
of Engineers®



**BUILDING STRONG®**  
*and Taking Care of People!*



US Army Corps  
of Engineers®

## THE ST. PAUL DISTRICT

covers  
**139K** SQUARE  
MILES

contains  
**4** MAJOR  
RIVER  
BASINS

- ▶ Mississippi
- ▶ Red River of the North
- ▶ Souris
- ▶ Rainy

operates in  
**5** STATES

- ▶ Minnesota
- ▶ Wisconsin
- ▶ North Dakota
- ▶ Iowa
- ▶ South Dakota

manages  
**13** LOCKS  
& DAMS

maintains  
**9ft** NAVIGATION  
CHANNEL

along  
**284** RIVER  
MILES

in the Upper Mississippi  
River System

operates  
**16** FLOOD RISK REDUCTION  
RESERVOIRS

within district  
**25** FEDERALLY RECOGNIZED  
TRIBES

invests  
**\$144M** FY2019 FEDERAL  
BUDGET

employs  
**650** people  
**30%** veterans

missions  
**6**

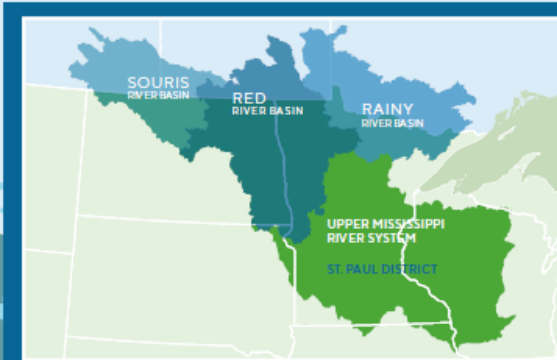
- ▶ Emergency Operations & Disaster Response
- ▶ Regulatory
- ▶ Navigation
- ▶ Environmental Management & Engineering
- ▶ Flood Response & Risk Management
- ▶ Recreation

U.S. Army Corps of Engineers  
**ST. PAUL DISTRICT**  
180 5th STREET E, STE 700  
SAINT PAUL, MN 55101

contact us  
651-290-5807  
[www.mvp.usace.army.mil](http://www.mvp.usace.army.mil)  
[facebook.com/usace.saintpaul](https://facebook.com/usace.saintpaul)  
[twitter.com/stpaulusace](https://twitter.com/stpaulusace)

- district boundaries
- lock and dam
- district headquarters
- campgrounds
- field office
- reservoir

\*For regulatory boundaries  
and field sites, see reverse.

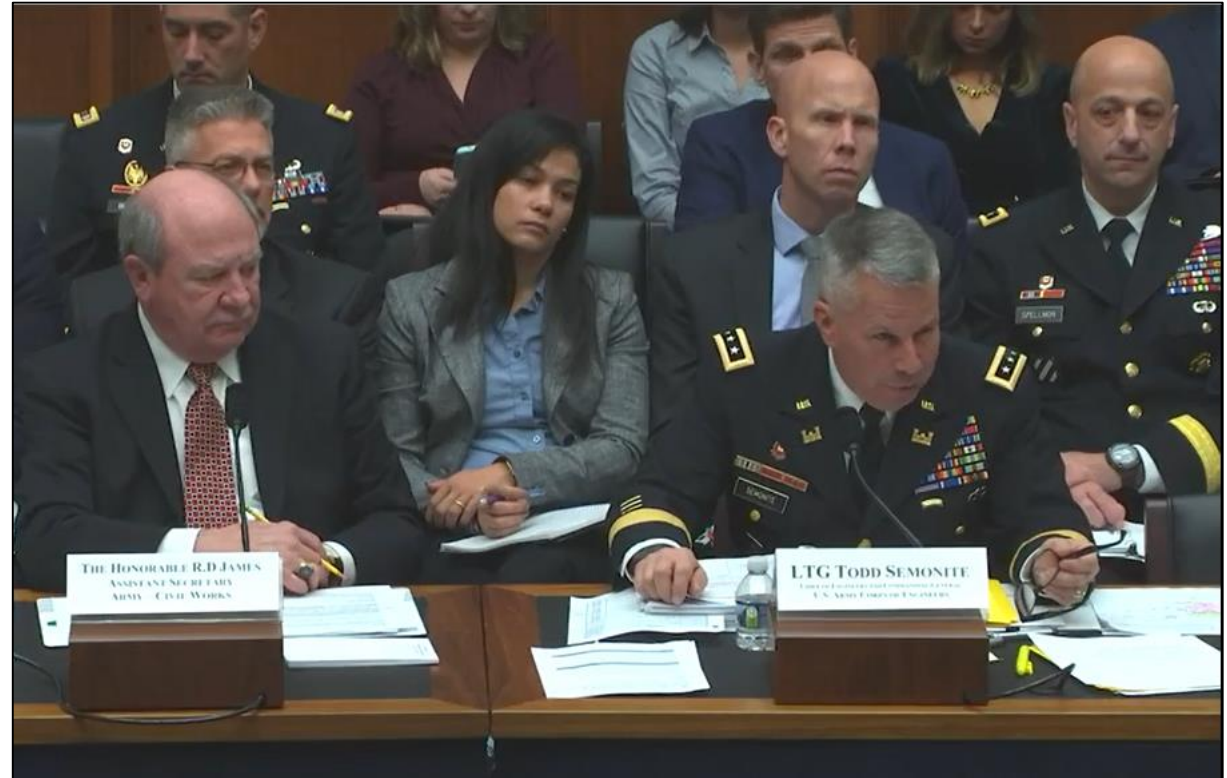


**INTERNATIONAL JOINT COMMISSION**— The St. Paul District  
supports and participates in three IJC boards: Souris River,  
Red River and Rainy River.





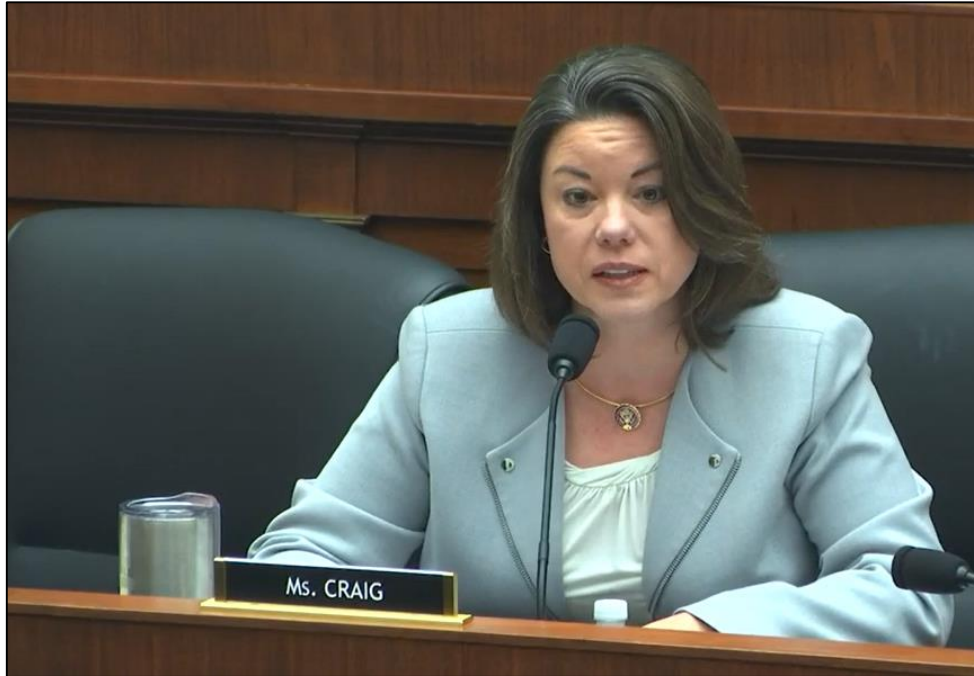
# LEADERSHIP UPDATES



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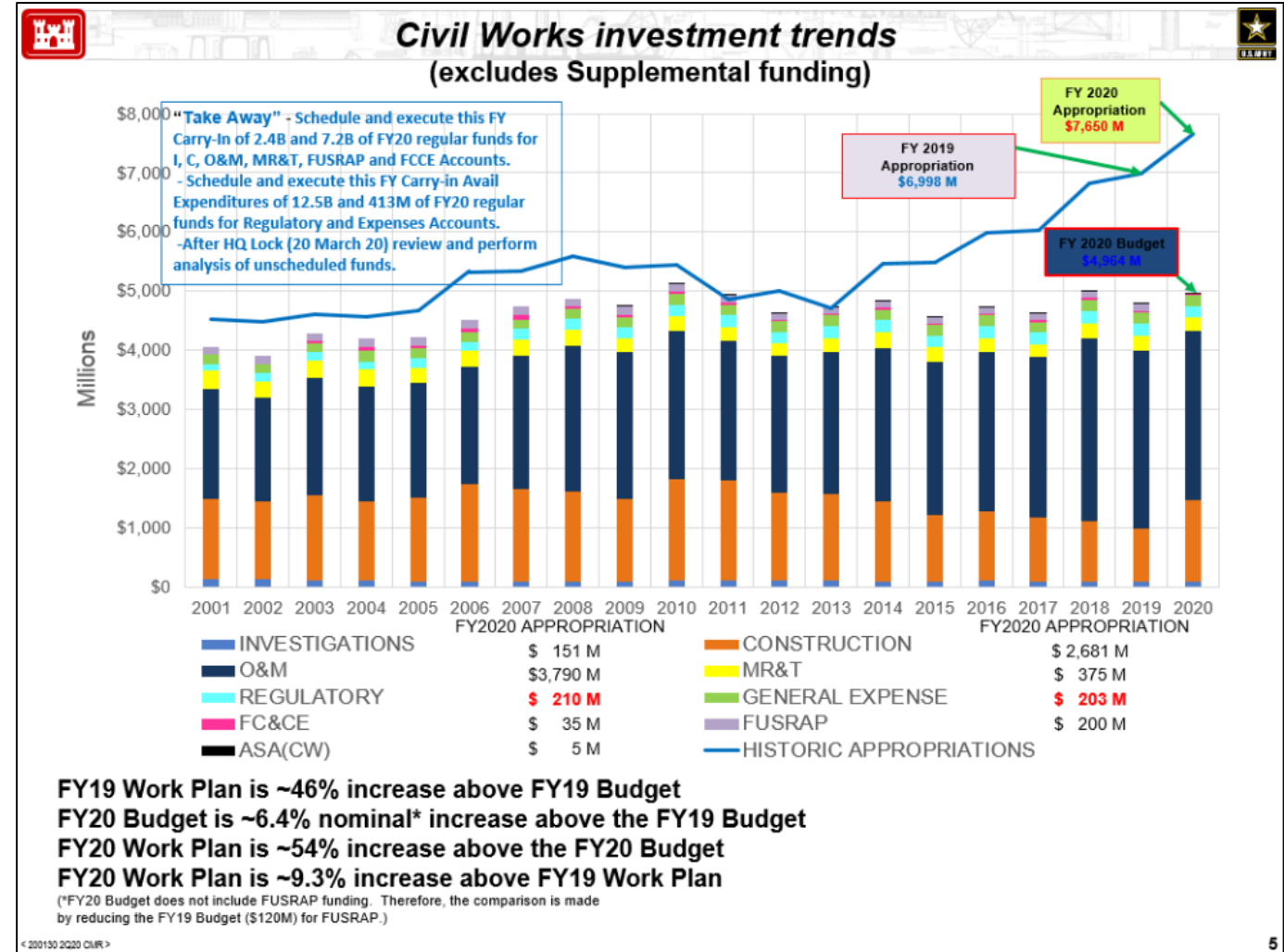
# BUDGET OUTLOOK



Congresswoman Angie Craig advocates for FY20 workplan funding to enable Minnesota River dredging during a 09 January 2020 House Transportation and Infrastructure Subcommittee on Water Resources and Environment hearing in Washington, D.C. focused on a 2020 WRDA.



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- FY21 Budget Release: 10 February 2020
- FY20 Work Plan Release: In the coming weeks





# REVOLUTIONIZE USACE CIVIL WORKS

5



## Three Mission-Critical Objectives

**OBJECTIVE 01** Accelerate Project Delivery



- Project Delivery Strategies
- Acquisition Processes and Tools
- Risk-Informed Decision-Making and Delegated Decisions
- Innovation

**OBJECTIVE 02** Transform Project Financing and Budgeting



- Alternative Financing Tools
  - WIFIA Loans
  - P3 Strategies
- Civil Works Budgeting
- Funding Flexibility

**OBJECTIVE 03** Improve Permitting and Regulation Reform



- Environmental Reviews and Permits
- Mitigation
- Permitting Processes
- Regulation Reform

**REVOLUTIONIZE USACE CIVIL WORKS**

## BUILDING STRONG INFRASTRUCTURE

USACE is committed to modernizing internal processes, pursuing alternative financing approaches, and streamlining permitting in cooperation with stakeholders to revitalize the nation's infrastructure.



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and Taking Care of People!



**Crosscurrent**  
Serving the St. Paul District since 1977  
Winter 2019/2020 | Vol. 45, No. 3

## Revolutionizing Civil Works

- Improving dredged material management planning  
Page 7
- Transforming project delivery  
Page 9

  
U.S. Army Corps of Engineers  
St. Paul District



# A LOOK BACK TO 2019



## 2019 UPPER MISSISSIPPI RIVER NAVIGATION STATISTICS

First  
Tow  
April 24 -  
Motor Vessel  
Aaron F. Barrett

Last  
Tow  
November 28 -  
Motor Vessel  
Kelly Rae Erickson



### TONNAGE



222  
ton ton ton

Total commodities shipped  
**81,158,220**  
tons

Annual lockages and tonnage  
were down due to record  
breaking water volumes  
and the resulting  
lock and dam closures

### Commercial lockages



**2,827** lockages  
below the  
10-year average

### Recreational lockages & vessels



Total  
lockages  
12,050

Total Vessels  
26,336

## SMASHING RECORDS!



US Army Corps  
of Engineers®  
St. Paul District

MISSISSIPPI  
RIVER

### LOCK & DAM 10 WATER VOLUMES

**2019** | ~25.4

**1993**  
previous record | ~19.2

**50**-year  
average | ~12.4

**1988**  
record low | ~6.1

\*trillion gallons of water

Enough water  
passed through  
Lock & Dam 10  
in 2019 to fill  
Mille Lacs Lake  
**28 Times!**



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# EXPERIENCING A UNIQUE WINTER

7



Flows have remained high all winter.  
Dealing with ice jams caused from the  
varying temperatures paired with the  
high flows.

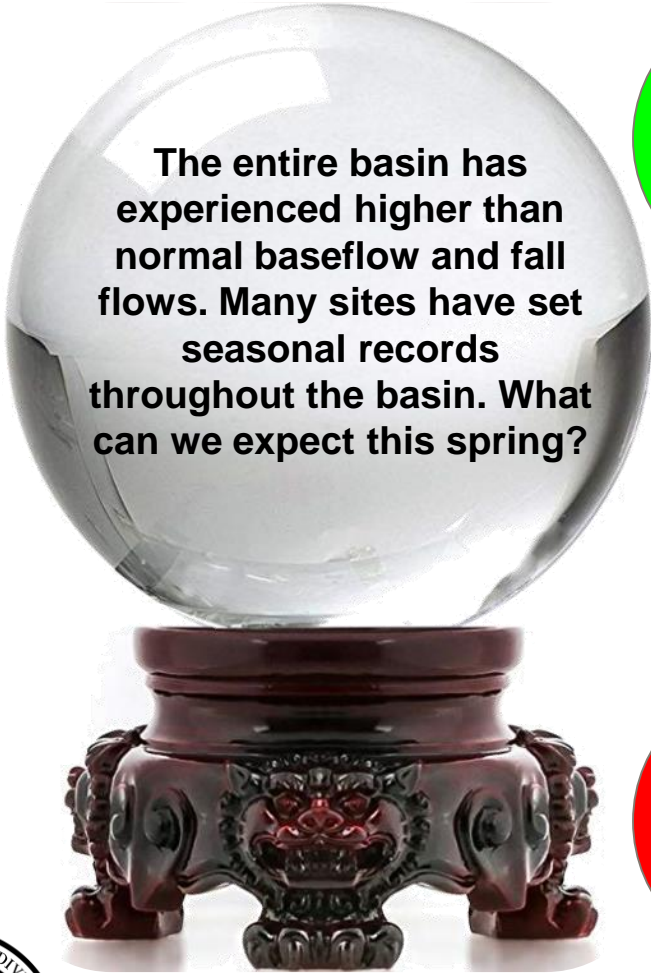


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# PREPARING FOR A CHALLENGING SPRING 2020



The entire basin has experienced higher than normal baseflow and fall flows. Many sites have set seasonal records throughout the basin. What can we expect this spring?



## Probable

- Spring melt happens to be mild and drawn out (like last year). Ice jamming areas melt and dissipate before runoff arrives. An average amount of additional precipitation is received. All locks pull gates at some point. The locks remain open to navigation. SAF flood gate is used briefly.



## Possible

- Spring melt happens at an average rate. Ice jamming is an issue in some areas but dissipate quickly and with little impact. An average amount of additional precipitation is received. All locks pull gates. All locks require some flood action (like last year). Locks 4 and 3 close to navigation briefly (maybe a handful of days). SAF flood gate is used for an extended period.



## Unthinkable

- Spring melt happens quickly. Ice jammed areas inundated unpredictably. Above average amount of precipitation is received. All locks pull gates early. Additional flood action needed at lock sites beyond what was done last year. Locks 4 and 3 are closed to navigation for extended periods. Other locks closed for a handful of days (Locks 5A and 10 are next most likely). SAF flood gate is used for perhaps the entire event



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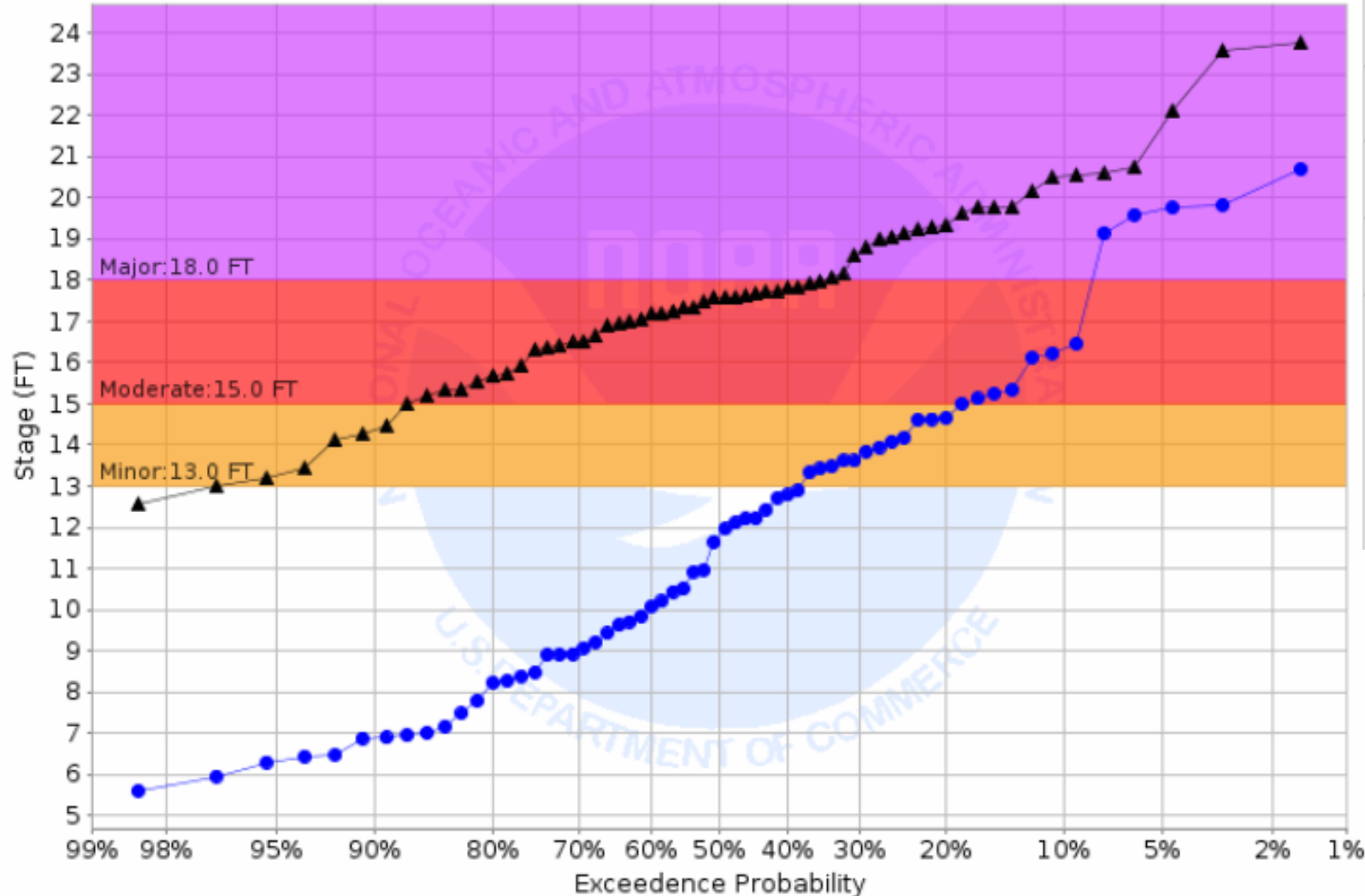


# CURRENT PROBABILISTIC FORECAST: WINONA

9



Chance of Exceeding River Stage at Mississippi River at Winona (WNAM5)  
Forecast for the period 01/27/2020 - 04/26/2020  
This is a conditional simulation based on the conditions as of 01/20/2020



## Impacts

- 25 Water levels reach the top of the emergency dike.
- 24 Water overtops the levee downtown.
- 22 Water levels reach the designed dike protection level.
- 20.77 The water reaches the flood of record set in 1965. **5-10%**
- 20.5 Railroad lines go under water.
- 17 Some railroad lines may become inoperative.
- 16.6 Lock and Dam 6 goes out of operation. **70-75%**
- 16 Lock and Dam 5A goes out of operation.

— Current Simulation  
— Historical Simulation

# Resilient Navigation

## *2020-2030 Strategic Priorities*

The 9-foot Navigation Project is approaching 100-years in service; we are setting our sights on preparing for the next century of relevant and reliable operation to support our nation's competitive advantage.

Resilient Navigation

People

Infrastructure

Channel Maintenance

Technology

Partnerships





# RESILIENT NAVIGATION: *PEOPLE*



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# RESILIENT NAVIGATION: *INFRASTRUCTURE*

12



Tow Rail Replacement at Lock and  
Dam #9

Upper St. Anthony Falls Lock and Dam



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# RESILIENT NAVIGATION: *CHANNEL MAINTENANCE*

13



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# DREDGED MATERIAL MANAGEMENT PLANS



## Pool 2

Upper Pool Approach: Transfer sediment to local partner for beneficial use. **Non-standard estate agreement** required.

Lower Pool Approach: Acquire Lower Grey Cloud Island pit through a successful negotiation.

Next Steps: Finalize report based on recent comment period.

## Pool 4

Approach: Pursue a **217(d) agreement** with Wabasha Port Authority

Next Steps: Late spring 2020 draft report release for public comment.

## Pool 5

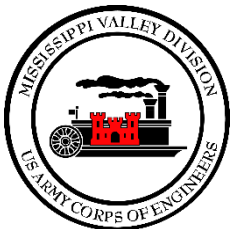
Approach: Site acquisition from a **willing seller**

Next Steps: Finalize real-estate actions and prepare to implement plan.

## Pool 6

Approach: Beneficial use opportunities and site acquisition through a successful negotiation.

Next Steps: Public release of Tentatively Selected Plan (TSP), to include a public meeting on 11 February 2020.







# RESILIENT NAVIGATION: *TECHNOLOGY*

15



USACE Hydrographic Surveys powered by eHydro

USACE District:

St. Paul - MVP

USACE Channel:

All

Channel ID:

All

Survey Date Range:

All Surveys Last 60 days 2019 2018

Custom Date Range

Select Survey:

List is limited to 50 records.

To see older surveys,  
configure a custom date  
range or zoom in on the map

Name: POOL\_03\_UPPER\_MISSISSIPPI  
Survey ID: UM\_SP\_P03\_20191104\_CS\_7990\_8000  
Survey Date: 11/4/2019  
[Download Data](#)

District: CEMVP  
Name: POOL\_03\_UPPER\_MISSISSIPPI  
Survey ID: UM\_SP\_P03\_20191104\_CS\_7990\_8000  
Last update: a minute ago

Survey List

Number of Surveys

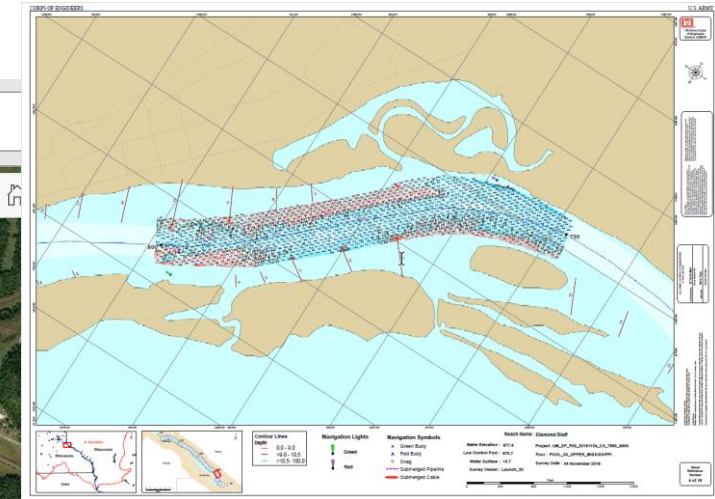
1,756

0 last 60 days

Last update: a minute ago

Use the dropdown menus or simply pan and zoom on the map to filter the Hydrographic Survey data.

Use any combination to drill down to the data you are interested in. To remove the filter, set the filter to "All".



Access to Water Resources Data  
WM Data Dissemination

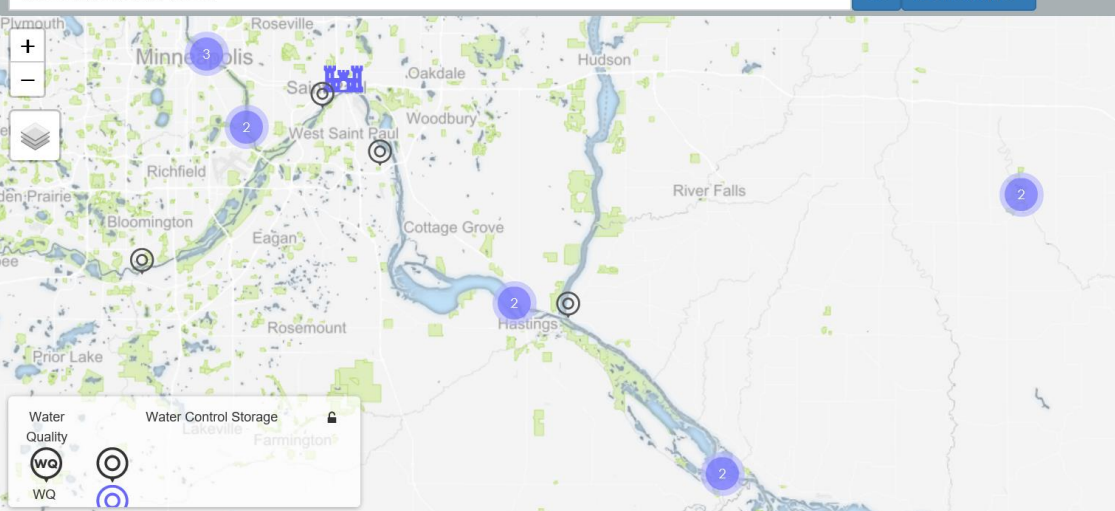
Map

Overview

Help

Mississippi River at Prescott

Go Location Type



Daily Change in  
Stage (ft): -1.25

Minnesota River  
at Savage

Current Elevation (ft):  
690.86

Current Flow (cfs):

Daily Change in  
Elevation (ft): 0.02

Miss River at  
South St. Paul

Current Elevation (ft):  
687.85

Current Flow (cfs):



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# RESILIENT NAVIGATION: *PARTNERSHIPS*



## River Resources Forum

*An interagency partnership on the Upper Mississippi River*

The River Resources Forum, or RRF, is a state and federal agency partnership for addressing resource issues concerning the Upper Mississippi River system within the St. Paul District jurisdiction. Participating agencies include: the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the U.S. Coast Guard, the Environmental Protection Agency, the Natural Resources Conservation Service, the National Park Service, the Minnesota Pollution Control Agency and the departments of natural resources and transportation from Minnesota, Wisconsin and Iowa.



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# RIAC





# ST. PAUL DISTRICT FUTURE OUTLOOK



## Headlines

- FY21 Budget Release
- FY20 Workplan
- Spring 2020 flooding outlook

## Challenges

- Minnesota River dredging
- Persistent high-water
- Aging infrastructure
- Dredged material management

## Opportunities

- Resilient Navigation
- Tribal Partnership Program
- Public Assistance to States
- Interagency Support

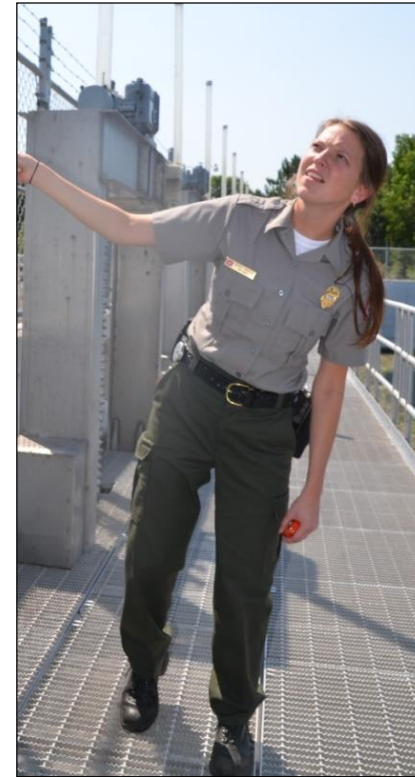
## Important Dates

- Pool 6 DMMP Public Meeting (11 February)
- Spring D.C. Congressional Visits (Week of 30 March)
- USACE Business Opportunities Open House (27 May)
- REP Kind / REP Hagedorn Visits to Locks and Dams (TBD)
- Upper St. Anthony Falls Disposition Study (Early Summer)





# QUESTIONS AND DIALOG



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